

10-289

SEARCH REQUEST FORM

CMI 2E17

Requestor's

Name:

PAK, JOHN

Serial

Number:

08/611,764

Date: 10/14/98

Phone: 308-4538

Art Unit: 1616

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Very pure ($>90\%$) H_2SO_4

+

(Distilled, preferably) H_2O

+

 NH_4SO_4 or Urea

← No other
Extraneous additive(s).

↓
Heat to High temp ($\sim 900^\circ F$)

↓
Final product

Inventor's name → Barry W. Cummins.

STAFF USE ONLY

Date completed:

10/14/98

Searcher:

m

Terminal time:

105

Elapsed time:

CPU time:

Total time:

125

Number of Searches:

2

Number of Databases:

3

Search Site

STIC

☒ CM-1

Pre-S

Type of Search

N.A. Sequence

A.A. Sequence

Structure

DH

Vendors

IG Suite

☒ STN

Dialog

APS

Geninfo

SDC

DARC/Questel

=> fil reg

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STRUCTURE FILE UPDATES: 09 OCT 98 HIGHEST RN 212432-75-2
DICTIONARY FILE UPDATES: 14 OCT 98 HIGHEST RN 212432-75-2

TSCA INFORMATION NOW CURRENT THROUGH JUNE 29, 1998

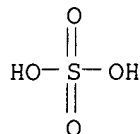
Please note that search-term pricing does apply when
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Stereochemical name changes have been adopted and appear in CN's
beginning 6/29/98. See the online news message for details.

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at an arrow prompt for a message containing
important details.

=> d ll ide can

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1998 ACS
RN 7664-93-9 REGISTRY
CN Sulfuric acid (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN BOV
CN Contact acid
CN Dihydrogen sulfate
CN Dipping acid
CN Oil of vitriol
CN Sulphuric acid
CN Vitriol brown oil
FS 3D CONCORD
DR 127529-01-5, 119540-51-1, 140623-70-7
MF H2 O4 S
CI COM
LC STN Files: AGRICOLA, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2,
BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT,
CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CHEMSAFE, CIN,
CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*,
HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS,
NIOSHTIC, PDLCOM*, PIRA, PNI, PROMT, RTECS*, SPECINFO, TOXLINE,
TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USAN, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



55541 REFERENCES IN FILE CA (1967 TO DATE)
3003 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
55610 REFERENCES IN FILE CAPLUS (1967 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 129:210535
REFERENCE 2: 129:210305
REFERENCE 3: 129:209234
REFERENCE 4: 129:209045
REFERENCE 5: 129:208539
REFERENCE 6: 129:208516
REFERENCE 7: 129:208498
REFERENCE 8: 129:208493
REFERENCE 9: 129:208485
REFERENCE 10: 129:208482

=> d 12 ide can

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1998 ACS
RN 7732-18-5 REGISTRY
CN **Water (8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN Distilled water
CN DRiWATER
CN Hydrogen oxide (H2O)
CN R 718
FS 3D CONCORD
MF H2 O
CI COM
LC STN Files: AIDSLINE, ANABSTR, BIOSIS, CA, CABA, CANCERLIT, CAPLUS,
CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CHEMSAFE,
CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, GMELIN*, IFICDB, IFIPAT,
IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, RTECS*,
SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, ULIDAT, USAN, USPATFULL,
VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

H2O

203311 REFERENCES IN FILE CA (1967 TO DATE)
635 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
203594 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:211082

REFERENCE 2: 129:211021

REFERENCE 3: 129:211003

REFERENCE 4: 129:210997

REFERENCE 5: 129:210989

REFERENCE 6: 129:210977

REFERENCE 7: 129:210967

REFERENCE 8: 129:210962

REFERENCE 9: 129:210959

REFERENCE 10: 129:210947

=> d 112 ide can

L12 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1998 ACS

RN 57-13-6 REGISTRY

CN Urea (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN B-I-K

CN Benural 70

CN Carbamide

CN Carbamimidic acid

CN Carbonyl diamide

CN Isourea

CN Keratinamin Kowa

CN Nimin

CN Pastaron

CN Pastaron 10

CN Pastaron 20

CN Pastaron 20 soft

CN Pseudourea

CN UR

CN Urea perhydrate

CN Ureaphil

CN Ureophil

CN Urepeal

CN Urepeal L

CN Urepearl

CN Urevert

CN Varioform II

FS 3D CONCORD

DR 30535-50-3

MF C H4 N2 O

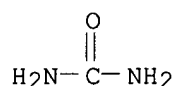
CI COM

LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CBNB, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PHAR, PNI, PROMT, RTECS*, SPECINFO, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USAN, USPATFULL, VETU, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

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43774 REFERENCES IN FILE CA (1967 TO DATE)

2497 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

43810 REFERENCES IN FILE CAPLUS (1967 TO DATE)

9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 129:211037

REFERENCE 2: 129:207168

REFERENCE 3: 129:207107

REFERENCE 4: 129:206543

REFERENCE 5: 129:206486

REFERENCE 6: 129:204299

REFERENCE 7: 129:204259

REFERENCE 8: 129:204243

REFERENCE 9: 129:204140

REFERENCE 10: 129:203258

=> d ide can

L36 ANSWER 1 OF 1 REGISTRY COPYRIGHT 1998 ACS

RN 7783-20-2 REGISTRY

CN Sulfuric acid diammonium salt (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN Ammonium sulfate

CN Ammonium sulfate ((NH4)2SO4)

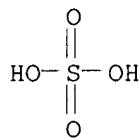
CN Ammonium sulphate

CN Coaltrol LPA 40

CN Diammonium sulfate

CN Diammonium sulphate

CN Dolamin
 CN Liase
 CN Para-Go
 CN Sulfuric acid ammonium salt (1:2)
 CN Sulfuric acid, diammonium salt
 DR 64006-53-7, 82168-61-4, 44071-93-4
 MF H3 N . 1/2 H2 O4 S
 CI COM
 LC STN Files: AGRICOLA, AIDSLINE, ANABSTR, APILIT, APILIT2, APIPAT, APIPAT2, BIOBUSINESS, BIOSIS, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CBNB, CIN, CSCHEM, CSNB, DETHERM*, DDFU, DIPPR*, DRUGU, EMBASE, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PNI, PROMT, RTECS*, TOXLINE, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 CRN (7664-93-9)



● 2 NH₃

12140 REFERENCES IN FILE CA (1967 TO DATE)
 88 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 12156 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:210789
 REFERENCE 2: 129:208521
 REFERENCE 3: 129:206183
 REFERENCE 4: 129:204429
 REFERENCE 5: 129:203889
 REFERENCE 6: 129:202438
 REFERENCE 7: 129:202434
 REFERENCE 8: 129:202145
 REFERENCE 9: 129:201821
 REFERENCE 10: 129:200072

=> d his 117-134

(FILE 'REGISTRY' ENTERED AT 11:29:14 ON 15 OCT 1998)

FILE 'HCAPLUS' ENTERED AT 11:30:37 ON 15 OCT 1998

L17 55611 S L1
L18 12759 S L11
L19 43937 S L12
L20 1417 S L17 AND L18
L21 575 S L17 AND L19
L22 237 S L20,L21 AND HEAT?
L23 264 S L20,L21 AND TEMPERATURE
L24 87 S L20,L21 AND THERMAL?
L25 476 S L22-L24
L26 9359 S L1/P OR L11/P OR L12/P
L27 385 S L25 NOT L26
L28 80 S L27 AND (HIGH OR ELEVAT?)
L29 13 S L28 AND (54 OR 49 OR 70 OR 39)/SC
L30 3 S L29 AND (AMMONIOJAR? OR HYDROXYLAMINE OR REVIEW OR CARB
SEL HIT RN 1-3

FILE 'REGISTRY' ENTERED AT 12:00:35 ON 15 OCT 1998

L31 2 S E4-E5

FILE 'HCAPLUS' ENTERED AT 12:00:58 ON 15 OCT 1998

L32 3 S L28 AND (AMMONIOJAR? OR HYDROXYLAMINE OR REVIEW OR CARB
L33 1 S L28 AND REVIEW
L34 4 S L32,L33

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 12:05:27 ON 15 OCT 1998
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FILE COVERS 1967 - 15 Oct 1998 VOL 129 ISS 16
FILE LAST UPDATED: 15 Oct 1998 (981015/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d all 134 tot

L34 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 1998 ACS

AN 1995:751488 HCAPLUS
DN 123:175437
TI Preparation and decomposition of **ammoniojarosite** at **elevated temperatures** in H₂O-(NH₄)₂SO₄-H₂SO₄ media
AU Das, G. K.; Anand, S.; Acharya, S.; Das, R. P.
CS Regional Research Laboratory, Council for Scientific and Industrial Research, Bhubaneswar 751 013, Orissa, India
SO Hydrometallurgy (1995), 38(3), 263-76
CODEN: HYDRDA; ISSN: 0304-386X
DT Journal
LA English
CC 54-2 (Extractive Metallurgy)
AB Ammoniojarosite samples were prepd. at 368 and 483 K. The XRD patterns of these samples were identical, showing sharp peaks corresponding to d lines of reported ammoniojarosite. TG-DTA curves show that the decompn. of ammoniojarosite starts at .apprx.643 K, with complete conversion to Fe₂O₃ at .apprx.1073 K. Hydrothermal decompn. of ammoniojarosite was studied by varying H₂SO₄ concn., time, **temp.** and (NH₄)₂SO₄. It was obsd. that, depending on the acid concn., the jarosite was stable up to 503 K. At 523 K complete decompn. of jarosite takes place within 3 h.
ST ammoniojarosite ammonium sulfate sulfuric acid
IT **7664-93-9**, Sulfuric acid, uses 7732-18-5, Water, uses **7783-20-2**, Ammonium sulfate, uses
RL: NUU (Nonbiological use, unclassified); USES (Uses)
(prepn. and decompn. of ammoniojarosite at **elevated temps.** in H₂O-(NH₄)₂SO₄-H₂SO₄ media)
IT 12194-95-5, Ammoniojarosite
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(prepn. and decompn. of ammoniojarosite at **elevated temps.** in H₂O-(NH₄)₂SO₄-H₂SO₄ media)

L34 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 1998 ACS
AN 1991:46007 HCAPLUS
DN 114:46007
TI Manufacture of crystalline **hydroxylamine** sulfate having low ammonium sulfate content
IN Fuchs, Hugo; Neubauer, Gerald; Ritz, Josef; Weiss, Franz Josef
PA BASF A.-G., Fed. Rep. Ger.
SO Ger. Offen., 4 pp.
CODEN: GWXXBX
PI DE 3916320 A1 19901122
AI DE 89-3916320 19890519
DT Patent
LA German
IC ICM C01B021-14
ICA B01J041-14; A01N059-00
CC 49-5 (Industrial Inorganic Chemicals)
AB The process comprises contacting an aq. soln., which contains (NH₄)₂SO₄ 0.02-0.03 and H₂SO₄ 0.3-0.02 wt. parts/wt. part hydroxylamine sulfate (I), under stirring, with a basic ion exchanger while maintaining the pH at 3.0-4.0, sepg. the ion exchanger from the aq. soln., evapg. the soln. under reduced pressure at <100.degree., crystg. .ltoreq.70 wt.% of the I from the concd. soln., and sepg. the I from the mother liquor. This process avoids corrosion problems, and increases the crystn. capacity. A soln. contg., per 254 g I, 13 g free H₂SO₄ and 18.6 g (NH₄)₂SO₄ was passed over an amino group-exchanged and NH₄OH-treated polystyrene

- heat exchanger until the pH reached 3.35. The soln. was examd. at .apprx.60.degree. under partial vacuum (190 mbar) and gave, under cooling to 20.degree., 50% of the I as crystals contg. 0.6 wt.% (NH₄)₂SO₄ vs. 1.1 wt.% by prior art method.
- ST hydroxylamine sulfate crystn ion exchanger; sulfuric acid removal hydroxylamine sulfate; ammonium sulfate removal hydroxylamine sulfate; basic ion exchanger hydroxylamine sulfate
- IT Ion exchangers
(basic, ammonium sulfate and sulfuric acid removal by, for hydroxylamine sulfate crystn.)
- IT 10039-54-0, Hydroxylamine sulfate
RL: USES (Uses)
(crystn. of, from aq. solns., ion exchange with basic ion exchanger in, for low ammonium sulfate and sulfuric acid content)
- IT 7664-93-9, Sulfuric acid, uses and miscellaneous
7783-20-2, Ammonium sulfate, uses and miscellaneous
RL: REM (Removal or disposal); PROC (Process)
(removal of, from hydroxylamine sulfate solns., with basic ion exchanger, for **high**-purity product crystn.)
- L34 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 1998 ACS
AN 1978:481851 HCAPLUS
DN 89:81851
- TI Anodic oxidation of aluminum using an automatically controlled **high-temperature** bath of the sulfuric acid-ammonium sulfate system. I
- AU Tajima, Hisashi
CS Dep. Technol., Tokyo Metrop. Univ., Tokyo, Japan
SO Kinki Aruminyumu Hyomen Shori Kenkyukai Kaishi (1975), 53, 48-53
CODEN: KAHKA7
- DT Journal; General Review
LA Japanese
CC 72-0 (Electrochemistry)
AB A **review** with 6 refs.
ST **review** aluminum anodization **high temp**;
ammonium sulfate anodization aluminum **review**
- IT Anodization
(of aluminum, in automatically controlled **high-temp.** sulfuric acid-ammonium sulfate bath)
- IT 7783-20-2, uses and miscellaneous
RL: USES (Uses)
(anodization of aluminum in automatically controlled **high-temp.** acid bath of)
- IT 7664-93-9, uses and miscellaneous
RL: USES (Uses)
(anodization of aluminum in automatically controlled **high-temp.** ammonium sulfate bath with)
- IT 7429-90-5, uses and miscellaneous
RL: RCT (Reactant)
(anodization of, in automatically controlled **high-temp.** sulfuric acid-ammonium sulfate bath)
- L34 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 1998 ACS
AN 1970:426504 HCAPLUS
DN 73:26504
- TI **Carbonizing** of cellulose fibers
IN Miyamichi, Kazuo
PA Nitto Boseki Co., Ltd.

SO Ger. Offen., 61 pp.
 CODEN: GWXXBX
 PI DE 1955474 19700514
 PRAI JP 19681106 - 19690919
 DT Patent
 LA German
 IC C01B
 CC 39 (Textiles)
 AB Cellulose fibers are treated with a strength improver and then carbonized by **heating** at 200-350.degree. in an oxidizing atm. and at .apprx.1000.degree. in an inert atm. The strength improver consists of (NH4)2SO3, (NH4)HSO3, (NH4)HSO4, or (NH4)2S2O3, a mixt. of 1 or more of the compds. (NH4)2SO4, (NH4)HSO4, (NH4)2SO3, (NH4)HSO3, (NH4)2S2O2, H2NSO3NH4, or ammonium imidosulfonate and .gtoreq.1 nitrogeneous base, or a mixt. of H2SO4, H2SO3, or H2NSO3h and .gtoreq.1 nitrogeneous base. The strength-improving treatment can be combined with a flame-retardant treatment. This process gives C or graphite fibers of improved strength and flexibility, and provides a com. method in which destruction of the cellulose by pyrolysis during **heat-treating** is reduced and which is operative at **high heating** rates.
 ST carbonizing cellulose fibers; cellulose fibers carbonizing; fibers cellulose carbonizing; graphite fibers; ammonium salts fiber treatment; sulfur oxyacid salts fiber treatment
 IT Fiber, synthetic
 RL: USES (Uses)
 (carbon, from rayon strengthened by ammonium salts combined with fireproofing phosphorus compds.)
 IT Fireproofing
 (of rayon strengthened by ammonium salts with phosphorus compds. for carbon fiber manuf.)
 IT Phosphorus
 RL: USES (Uses)
 (fireproofing by, of rayon strengthened by sulfur compds. for carbon fiber manuf.)
 IT 7440-44-0P, preparation 7782-42-5P, preparation
 RL: PREP (Preparation)
 (fibers, from rayon strengthened by ammonium salts)
 IT 7783-18-8
 RL: USES (Uses)
 (rayon fiber strengthening by, for carbon fiber manuf.)
 IT 5329-14-6 **7664-93-9**, uses and miscellaneous 7782-99-2, uses and miscellaneous **7783-20-2**, uses and miscellaneous 10196-04-0
 RL: USES (Uses)
 (rayon treatment with strengthening, for carbon fiber manuf.)

=> fil wpids

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FILE LAST UPDATED: 14 OCT 1998 <19981014/UP>
 >>>UPDATE WEEKS:
 MOST RECENT DERWENT WEEK 199841 <199841/DW>
 DERWENT WEEK FOR CHEMICAL CODING: 199836
 DERWENT WEEK FOR POLYMER INDEXING: 199838
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

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(FILE 'HCAPLUS' ENTERED AT 12:05:27 ON 15 OCT 1998)

FILE 'WPIDS' ENTERED AT 12:06:06 ON 15 OCT 1998

E SULFURIC ACID/DCN
E E3+ALL/DCN
L37 2078 S R01714/DCN
L38 6784 S (C101(P)C108(P)C316(P)C540(P)C730(P)C800(P)C801(P)C802(
E AMMONIUM SULFATE/DCN
E E3+ALL/DCN
L39 3056 S R01786/DCN OR 1786/DRN
L40 18969 S L37 OR L38 OR 1714/DRN
L41 52300 S (SULFURIC OR SULPHURIC)()ACID OR H2SO4 OR H2 SO4
L42 58426 S L40,L41
L43 4465 S (C108(P)C316(P)C500(P)C540(P)C730(P)C801(P)C802(P)C804(
L44 9886 S AMMONIUM () (SULFATE OR SULPHATE) OR NH4SO4 OR NH4 2S04
E UREA/DCN
E E3+ALL/DCN
L45 40230 S R00123/DCN OR 0123/DRN OR UREA
L46 766 SEA ("L432"(P)M280(P)M320(P)M416(P)M424(P)M620)/M0,M1,M2,
M3,M4,M5,M6
L47 40412 S L45,L46
L48 1667 S L42 AND L44
L49 26 S L42 AND L46
L50 1683 S L48,L49
L51 71 SEA L50 AND (N514 OR N515)/M0,M1,M2,M3,M4,M5,M6
L52 5 SEA L51 AND R023/M0,M1,M2,M3,M4,M5,M6
L53 28 S L51 AND (WATER OR H2O)
L54 1 S L51 AND (R01740/DCN OR 1740/DRN)
L55 20 S L51 AND AQUEOUS
L56 12 S L51 AND LIQUID
L57 47 S L52-L56
L58 1 S L57 AND STEAM/TI
L59 2 S L57 AND STREAM/TI
L60 1 S L59 AND APPTS/TI

FILE 'WPIDS' ENTERED AT 12:32:15 ON 15 OCT 1998

=> d all kwic 160

L60 ANSWER 1 OF 1 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD
AN 86-041483 [06] WPIDS
DNN N86-030306 DNC C86-017666
TI Acid cpd. prodn. **appts.** - where ammonia and then
sulphuric acid are injected into an **aq.**
stream.
DC E37 J04 Q78
IN SORBER, K H
PA (SORC-N) SORCO CORP
CYC 1
PI US 4564504 A . 860114 (8606)* 7 pp

ADT US 4564504 A US 83-556091 831129

PRAI US 83-556091 831129

IC B01J014-00; B01J019-02; C01C001-24; F28D007-00

AB US 4564504 A UPAB: 930922

An acid cpd. formed by the reaction of ammonia and **sulphuric acid** in an **aq.** medium at high temps. and pressures, is produced in appts. which comprises a pair of reactors arranged in series for injecting the ammonia and then the **sulphuric acid** into a stream of the **aq.** medium.

USE/ADVANTAGE - The appts. can withstand the temps. and pressures during the reaction sequence, and also the corrosive attack of the ammonia and **sulphuric acid**. The acid cpd. can be used as a metal cleaner, electrolyte, etching agent, plating media or soil enhancer.

0/10

FS CPI GMPI

FA AB

MC CPI: E32-A03; J04-X

DRN 1713-S; 1714-S

M3 *01* C101 C107 C108 C316 C500 C520

C540 C730 C800 C801

C802 C804 M411 M417 M424 M720

M740 M903 N513 N514 N515 N521 N522 N523

N524 Q461 Q463 Q465

TT TT: ACID COMPOUND PRODUCE APPARATUS AMMONIA **SULPHURIC**
ACID INJECTION **AQUEOUS** STREAM.

N513 = > 30 - 200 °C

N514 = > 200 - 500 °C

N515 = > 500 °C

N521 = 1 - 2

N522 = 2 - 20 Atms.
(pressure)

N523 = > 2 - 100 Atms.

N524 = > 100 - 1000

=> d all 7 13

L48 ANSWER 7 OF 41 HCAPLUS COPYRIGHT 1998 ACS
AN 1993:455362 HCAPLUS
DN 119:55362
TI Disposal of acidic petroleum refining residues
IN Dimun, Milan; Lazar, Lubomir; Zeman, Svatopluk; Lipka, Radislav;
Kellner, Michal; Kabatova, Viera; Truchlik, Stefan
PA Czech.
SO Czech., 3 pp.
CODEN: CZXXA9
PI CS 273073 B1 19920330
AI CS 88-5581 19880812
DT Patent
LA Slovak
IC ICM C10G017-06
CC 60-5 (Waste Treatment and Disposal)
Section cross-reference(s): 19, 37, 51, 57
AB During disposal, acid petroleum refining residues contg.
H2SO4 15-70, sulfoacids 5-50, oil 10-60, and **water**
5-30 wt.% are used as a catalyst and constructed with **urea**
, dicyandiamide, guanidine, semicarbazide, thiourea, and/or melamine
and Cl-3-aldehydes (esp. formaldehyde or glyoxal) or **urea**
-formaldehyde or phenol-formaldehyde resin. The resulting product
is useful in manuf. of fertilizers, composite thermal insulators,
and carbonaceous materials. Thus, petroleum refining residue contg.
H2SO4 37.9, sulfo acids 25.8, mineral oil 24.3, and
water 12 wt. % was contacted with a reaction. for mixt. of
38% formaldehyde and **urea** to give a solid product which
was ground and used in manufg. of slow-release N fertilizers.
ST petroleum refining residue disposal; fertilizer manufg petroleum
refining residue; thermal insulator petroleum refining residue;
carbonaceous material petroleum refining residue
IT Petroleum refining residues
(disposal of acidic, by using as catalysts in polymer prepn.)
IT **Thermal** insulators
(manufg. of, use of petroleum refining residues in)
IT Aminoplasts
Carbonaceous materials
Fertilizers
Phenolic resins, preparation
Polymers, preparation
RL: PREP (Preparation)
(manufg. of, use of petroleum refining residues in)
IT **57-13-6P, Urea**, preparation 9003-35-4P,
Formaldehyde-phenol copolymer 9011-05-6P, Formaldehyde-
urea copolymer 53037-34-6P, Glyoxal-**urea**
copolymer
RL: PREP (Preparation)
(manufg. of, use of petroleum refining residues in)

L48 ANSWER 13 OF 41 HCAPLUS COPYRIGHT 1998 ACS
AN 1987:578731 HCAPLUS
DN 107:178731
TI Methods for removing obstructions from conduits with **urea-**
sulfuric acid compositions
IN Young, Donald C.

PA Union Oil Co. of California , USA
SO U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 453,496.
CODEN: USXXAM
PI US 4673522 A 19870616
AI US 84-675774 19841128
PRAI US 81-318629 19811105
US 82-453496 19821227
DT Patent
LA English
IC ICM B08B003-08
ICS C11D007-08; C11D007-32; C23G003-04
NCL 252087000
CC 46-6 (Surface Active Agents and Detergents)
Section cross-reference(s): 61
AB A **urea-H2SO4** compn. contg. <2 mol **urea**
/mol **H2SO4** is useful for removing obstructions from
conduits such as sink drain traps and heat exchanger tubes. A
compn. contg. **water** and having **H2O/(urea**
+ H2SO4) molar ratio <2.5 is esp. useful for removing
obstructions by hydrolysis. A sink drain trap plugged with hair and
hard **water** salt was unplugged by adding 400 g soln. of
urea and **H2SO4**, having **urea/**
H2SO4 molar ratio 1 and **H2O/(urea +**
H2SO4) molar ratio 2, which contained 5% T-MULZ 891.
ST **urea sulfuric acid** cleaner; drain
cleaner sulfuric **urea**; pipe cleaner sulfuric **urea**
; scale remover sulfuric **urea**; heat exchanger pipe cleaner
IT **Heat-exchange** apparatus
(cleaning of pipes in, **sulfuric acid-**
urea compns. for)
IT Scale (coating)
(removal of, from pipes, **sulfuric acid-**
urea compns. for)
IT Detergents
(cleaning compns., **sulfuric acid-urea**
, for drains and heat exchangers)
IT 57-13-6, **Urea**, uses and miscellaneous
RL: USES (Uses)
(cleaners contg. **sulfuric acid** and, for
drains and heat exchangers)
IT 7664-93-9, **Sulfuric acid**, uses and
miscellaneous
RL: USES (Uses)
(cleaners contg. **urea** and, for drains and heat
exchangers)